

E 130                      135                      140                      145                      150                      155                      160 E

N 30

**TROPICAL STORM PEGGY**  
 BEST TRACK TC-18W  
 14 AUG-19 AUG 89  
 MAX SFC WIND 35KT  
 MINIMUM SLP 997MB

**LEGEND**

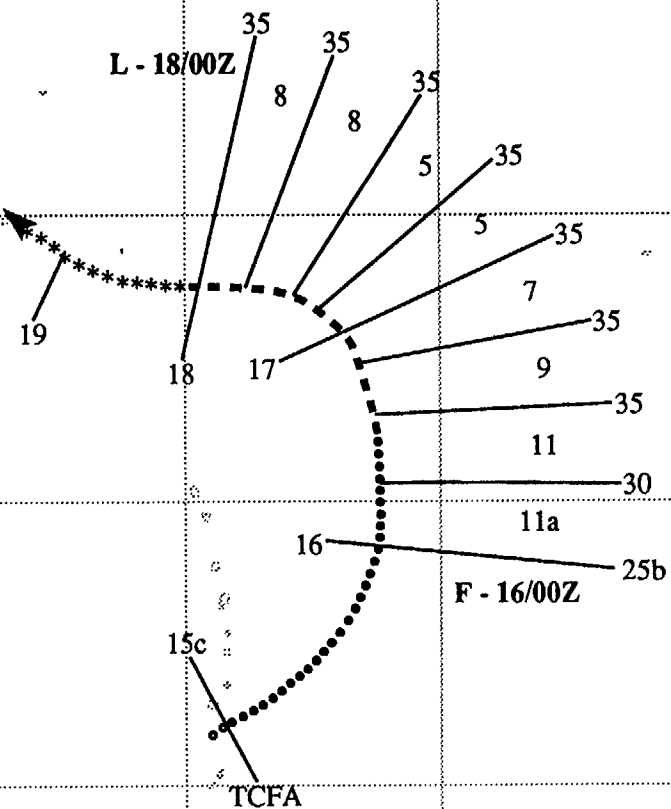
\ / \ /    6-HOUR BEST TRACK POSIT  
 a            SPEED OF MOVEMENT  
 b            INTENSITY  
 c            POSITION AT XX/0000Z  
 ○○○○○○    TROPICAL DISTURBANCE  
 ●●●●●●    TROPICAL DEPRESSION  
 - - - -    TROPICAL STORM  
 - - - -    TYPHOON  
 ◆           SUPER TYPHOON START  
 ◇           SUPER TYPHOON END  
 + + + +    EXTRATROPICAL  
 + + + +    SUBTROPICAL  
 \*\*\*       DISSIPATING STAGE  
 F           FIRST WARNING ISSUED  
 L           LAST WARNING ISSUED

25

20

15

N 10



TCFA

## TROPICAL STORM PEGGY (18W)

The third tropical cyclone to develop in the monsoon trough between 11 and 16 August, Peggy was short-lived and only reached minimal tropical storm intensity.

While tropical cyclones Owen (16W) and Nancy (17W) were completing their binary interaction and moving northward, the disturbance that would eventually become Peggy formed in the monsoon trough roughly 200 nm (370 km) north of Guam. Late on 14 August, satellite imagery displayed a new area of convection associated with a low-level circulation center. After sparse synoptic data indicated falling pressures and wind shifts

reflected the circulation's development, JTWC issued a Tropical Cyclone Formation Alert at 150000Z.

Initially, the disturbance moved northeastward and a small ragged area of central convection persisted. This persistent, but small, central dense overcast led JTWC to issue the first warning on Tropical Depression 18W at 160000Z. The depression then turned north to follow Owen's (16W) track. Increased convection resulted in an upgrade to tropical storm intensity on the 161200Z warning. The outflow from Owen (16W) restricted Peggy's outflow aloft. This increased vertical shear, in combination with the subsidence associated with a Tropical Upper Tropospheric Trough (TUTT) cell to the northeast, kept Peggy from developing further. Minor flare-ups of convection were, however, sufficient to allow Peggy to maintain its 35-kt (18 m/sec) intensity despite the shear. Meanwhile, lower tropospheric ridging northeast of Peggy caused the cyclone to turn to the west. At 180000Z, the final warning was issued when satellite imagery (Figure 3-18-1) indicated the separation of the low-level circulation from its convection and that the low-level center would remain in an area of strong subsidence. The residual low-level vorticity center drifted west-northwestward and dissipated on 19 August near Iwo Jima.

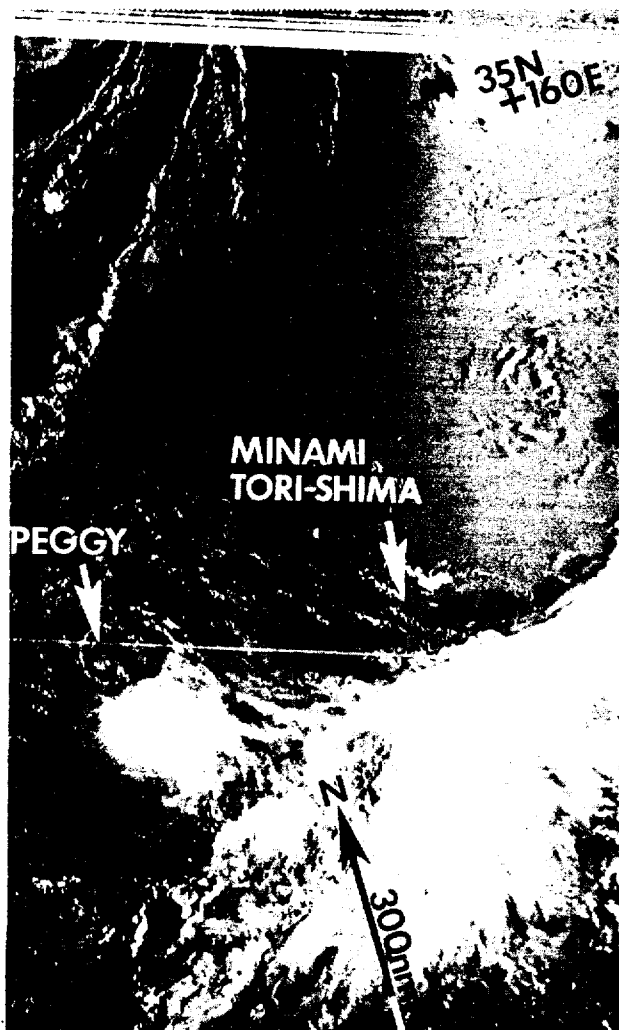


Figure 3-18-1. Vertical wind shear from the northwest exposes the low-level circulation center as a TUTT cell to the northeast of Peggy is becomes the dominant feature (172206Z August NOAA visual imagery).